ABC's OF POST-OP PAIN CONTROL FOR CHILDREN

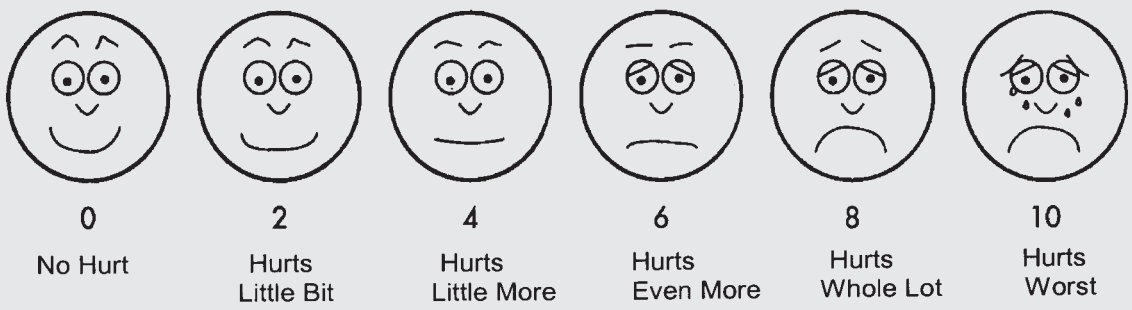
DOSAGES IN THIS CHART ARE NOT INTENDED FOR NEONATES AND INFANTS < 6 MONTHS.

ASSESS PAIN LEVEL.

ASK ABOUT PATIENT COMFORT GOAL.

Use assessment tool appropriate for child's age and development. Refer to WILDCATS Card.

Wong Baker Faces Pain Scale



From Wong, DL, Hockenberry-Eaton M, Wilson D, Winkelstein ML; Schwartz P: Wong's Essentials of Pediatric Nursing, ed. 6, St. Louis, 2001, Mosby, p. 1301. Copyrighted by Mosby-Year Book, Inc. Reprinted by permission.

BASE ANALGESIC, DOSE AND ROUTE ON TYPE/INTENSITY OF PAIN AND HISTORY.

Consider age, gender, renal/hepatic function, previous/current opioid use and response, and genetic factors.

CONVERT DRUGS AND DOSAGES ACCORDING TO EQUIANALGESIC CHART

USE CHART AS A GUIDE FOR ESTIMATING DOSES (if necessary).

The following equianalgesic doses are drug and route conversions approximately equal to a single morphine 10 mg IM dose. Rescue dose for break-through pain is usually calculated at 10-20% of the 24 hour dose. Use 1/4 to 1/2 the IM dose for single IV bolus. For all opioids, **use caution** in patients with impaired ventilation, bronchial asthma, increased intracranial pressure, or liver failure.

OPIOID AGONIST ANALGESICS	EQUIANALGESIC DOSE (mg) Parenteral IV, IM, SQ	Oral	CHILD Starting PO Dose IV (mg/kg)	PO	COMMENTS/ PRECAUTIONS
Morphine	10	30	0.1	0.3-0.5	Active metabolites are more potent and have longer half-lives than morphine. For sustained release tablets, do not administer PRN and do not crush.
Hydromorphone	1.5	7.5	0.015	0.02-0.1	No clinically active metabolites.
Fentanyl	0.1mg (100 micrograms)	1000 micrograms OT	0.001 (1 microgram)	0.01 (10 micrograms) OT	Drug of choice for patients with renal or liver disease. Oral transmucosal (OT) approved only for breakthrough cancer pain. Change transdermal fentanyl patch every 72 hours. Transdermal fentanyl patch 25 mcg/hour, roughly equivalent to sustained-released morphine, 45mg/day.
Methadone	Acute 10 Chronic 2-4	Acute 20 Chronic 2-4	0.1	0.1	Careful titration and monitoring due to long plasma half-life (24-36 hrs). Accumulates with repeated dosing requiring decreases in dose size and frequency, especially on days 2-5.
Meperidine	75	300	0.1	Not Recommended	Accumulation of toxic metabolite (normeperidine) causes CNS excitation and seizures with repeated dosing.
Oxycodone	N/A	20	N/A	0.1	5 mg oxycodone usually combined with aspirin or acetaminophen. (Do not exceed 4gms/day of acetaminophen). For sustained release tablets, do not administer PRN and do not crush.
Codeine	130	200 Not Recommended at this dose	Not Recommended	0.1	Use for mild to moderate pain. Usually in combination with aspirin or acetaminophen.
Hydrocodone	N/A	30 Not Recommended at this dose	N/A	0.1	Use for mild to moderate pain. Usually in combination with aspirin, acetaminophen or ibuprofen.

DOCUMENT ASSESSMENT, REASSESSMENT, INTERVENTION AND RESPONSE.

EXPECT, PREVENT, AND PROMPTLY TREAT SIDE EFFECTS (e.g. nausea, pruritus, sedation, constipation and respiratory depression).

RESCUE FOR OPIOID INDUCED RESPIRATORY DEPRESSION			
OPIOID ANTAGONIST	STANDARD AMPULE	PLASMA HALF-LIFE	DURATION
Naloxone	0.4 mg/ml	1 hr	1/2 - 3/4 hr

To Administer: for children and other patients wieghing < 40kg, dilute 0.1mg (0.25 ml) in 10ml of saline to make a 10 micrograms per ml solution. Administer at about 0.5micrograms/kg every two minutes. For example, a 38 kg child would receive approximately 19 micrograms or approximately 2ml every two minutes.

WARNING: NALOXONE HAS A RELATIVELY SHORT HALF-LIFE, OFTEN SHORTER THAN THE OPIOD USED. IF NOT RE-DOSED, NALOXONE MAY WEAR OFF BEFORE THE OPIOD. TITRATION OF NALOXONE IS NECESSARY TO AVOID WITHDRAWAL, SEIZURES AND SEVERE PAIN. COMPLICATIONS MAY INCLUDE INCREASED SYMPATHETIC ACTIVITY LEADING TO TACHYCARDIA, CARDIAC DYSRHYTHMIAS AND PULMONARY EDEMA.

EVALUATE PATIENT RESPONSES FREQUENTLY.

EDUCATE PATIENT ABOUT PAIN PLAN.

Reference: American Pain Society. (1999). Principles of Analgesic Use in the Treatment of Acute Pain and Cancer Pain, 4th Edition, Glenview, IL, American Pain Society.
Siberry, G. K. & Iannone, R. (2000). The Harriet Lane Handbook: A manual for pediatric house officers, 15th ed., St. Louis, Mosby.